On the 17th a radical change took place in the weather of the North Pacific States. The drought which had prevailed since the 19th of June was terminated by the southeastward movement of a low-pressure system from the valley of the Yukon. Rains and lower temperatures brought marked relief to the forest-fire situation in Oregon, Washington, and Idaho, a change in conditions which was anticipated 12 to 24 hours by district and local forecasts. Another disturbance of similar type produced general rains in the northern parts of the district on the 26th. Its behavior was unusual in that the rain in the north was preceded by showers in the coast range counties of California from the bay region northward, which, though light, were sufficient to require the covering of fruit in the process of sun-drying. Adequate warnings were issued to provide for protective measures.

On the 28th the first disturbance showing typical Fall characteristics appeared in the Gulf of Alaska, the pressure variation charts showing large changes on that and succeeding dates. This storm brought general rains to the North Pacific States and further relief to the fire situation in the forests. These rains were predicted 24 hours in advance.—*T. R. Reed.*

627.41(73) RIVERS AND FLOODS

By H. C. FRANKENFIELD

The floods of August were few and of very moderate character. The Trinity River of Texas was in moderate flood during the last week of July and crested on August 1 at a stage of 30.3 feet, 5.3 feet above the flood stage. The crest stage at Trinidad was 31.1 feet, or 3.1 feet above the flood stage, on August 5, but there were no floods below that point. A crest of 26 feet also occurred at Dallas immediately after the heavy rains of August 17–19. The floods were properly forecast and no losses of consequence occurred. These rains also caused moderate floods in the Sulphur River of Texas. Flood warnings were not necessary and no reports of damage were received. The excessive rains of August 16–18 over the upper drainage area of the Black River of Arkansas were followed by a flood that, while of small proportions, required flood warnings for the benefit of lumber, livestock, and agricultural interests. Stock and portable property were taken from the bottoms and there were no losses of consequence.

From August 17 to 19 the average rainfall over the upper drainage basin of the Wisconsin River was very nearly 5 inches, and under ordinary conditions there might have been a repetition of the great flood of July 24–25, 1912. That a disastrous flood did not occur was due (1) to the very dry condition of the soil and (2) to the prompt collection and dissemination of data and information by the Weather Bureau and its immediate and effective use by the power companies. These companies were enabled to open sluice gates in time to permit great volumes of water to pass down the stream in advance of the flood waters and materially lower the flood crest. Only at Knowlton, Wis., did the waters rise much above the flood stage (crest, 18.7 feet, or 6.7 feet above flood stage), and the reason therefor lies in the heavier local rains (over 6 inches) that fell over that section (Wausau 7.86 and Knowlton 5.42 inches). Flood stages did not actually occur below Wisconsin Rapids, yet the district officials wisely issued warnings for moderate floods, and a special report received indicated that the warnings permitted the saving of a large quantity of construction equipment at Prairie du Sac, Wis.

The losses as reported did not exceed $6,000 in crops and $1,000 in lost lumber. There was, however, some damage to railroad trackage in the Wisconsin Valley.

Flood stages during the month of August, 1926

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC DRAINAGE					
Santee:	*Feet*			*Feet*	
Rimini, S. C.	12	(1)	6	13.2	3
Ferguson, S. C.	12	3	8	12.6	7
MISSISSIPPI DRAINAGE					
Hocking: Athens, Ohio	17	19	19	17.7	19
Little Miami: Kings Mills, Ohio	17	19	19	19.9	19
Tippecanoe: Norway, Ind.	6	22	24	6.1	22
Wisconsin:					
Knowlton, Wis.	12	21	23	18.7	22
Wisconsin Rapids, Wis.	12	23	23	12.6	23
Black: Black Rock, Ark.	14	19	19	14.1	19
Sulphur:					
Ringo Crossing, Tex.	20	19	21	21.2	20
Finley, Tex.	24	(1)	3	25.1	1
WEST GULF DRAINAGE					
Trinity:					
Dallas, Tex.	25	(1)	1	30.3	1
		20	21	26.0	21
Trinidad, Tex.	28	2	6	31.1	5

[1] Continued from last month.

MEAN LAKE LEVELS DURING AUGUST, 1926

By UNITED STATES LAKE SURVEY

[Detroit, Mich., Sept. 3, 1926]

The following data are reported in the Notice to Mariners of the above date:

Data	Lakes [1]			
	Superior	Michigan and Huron	Erie	Ontario
Mean level during August, 1926:	*Feet*	*Feet*	*Feet*	*Feet*
Above mean sea level at New York	600.98	578.59	571.30	244.99
Above or below—				
Mean stage of July, 1926	+0.12	+0.06	+0.08	−0.21
Mean stage of August, 1925	−0.54	+0.15	+0.22	+0.09
Average stage for August, last 10 years	−1.47	−1.96	−1.16	−1.30
Highest recorded August, stage	−2.95	−4.92	−2.81	−3.27
Lowest recorded August, stage	−0.54	+0.15	+0.22	+0.64
Average departure (since 1860) of the August level from the July level	+0.11	−0.06	−0.19	−0.31

[1] Lake St. Clair's level: In August, 1926, 574.01 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, AUGUST, 1926

By J. B. KINCER

General summary.—East of the Mississippi River the widespread rainfall about the beginning of the month was very favorable in conditioning the soil for crop growth and for plowing, and there was sufficient moisture in practically all sections of this area, except the middle Appalachian Mountain region. In the extreme lower Missouri Valley and over much of the central and northern plains, however, very unfavorable droughty conditions continued until after the middle of the month when there was sufficient rain to be of much benefit, especially to the range and to cultivated crops that were not too far gone. During the latter part of the month rainfall continued insufficient over the Great Basin, but the drought was largely relieved in the Great Plains and some good showers occurred over the far Northwest.